



Capabilities Development & Integration
Directorate

Squad: Foundation of the Decisive



Material Gaps and Solutions

MCoE MWH, room W105
10 SEP 14

Maneuver Center of Excellence (MCoE)
Maneuver Warfighter Conference 2014

Maneuver Center of Excellence - Team of Soldiers, Families, and Civilians from the Best Army in the World



Agenda



*Capabilities Development & Integration
Directorate*

10 SEP - 1440-1645

- 1440 – 1450 – Attendee Introductions
- 1450 – 1500 – CSA Video and SFDF Overview
- 1500 – 1515 – Materiel Overview
- 1515 – 1525 – Squad Tasks and Critical Needs
- 1525 – 1550 – Discuss Near/Mid Term Materiel Solutions
- 1550 – 1630 – Shaping the Squad Assessment Way Ahead
(LD)
- 1630 – 1645 – Open Discussion



Video



*Capabilities Development & Integration
Directorate*





SFDF Background



Capabilities Development & Integration Directorate



- Upon CSA directive, the MCoE conducted and completed:
 - ✓ Squad Capabilities Based Assessment (CBA)
 - ✓ Squad Concept for future operations
 - ✓ Established Squad Integrated Capabilities Development Team (ICDT) to integrate efforts
 - Squad ICDT includes ~ **80 organizations** that span the Army's operational units, acquisition and Research and Development agencies, Industry, the USMC, Special Forces, and the 75th Ranger Regiment.
 - Purpose: To ensure US Army Squads **achieve overmatch against current and future enemies** and are able to accomplish tough missions in complex environments.¹
 - Established a Limited Objective Experiment (LOE) forum to **evaluate** the recommendations of the ICDT to meet the Maneuver Warfighting Challenges (MWCs), and **develop and refine** blended training model relevant to Squad: Foundation of the Decisive Force pg. 1, September 13, 2010.
- Measures of Formation Effectiveness (MFE).**
- Maneuver Center of Excellence - Team of Soldiers, Families, and Civilians from the Best Army in the World*



Squad: Foundation of the Decisive Force



Fort Benning, Home of the
DirMCoE

Why the Squad...

- The contemporary operating environment (COE) forces us to fight as dismounted
- The Squad is the centerpiece of the tactical fight and will remain so in the future
- Squads operate under mission command but decentralized from higher HQ.



Required Capabilities of a Squad...

- Overmatch enabled through improvements to:
 - Network, Mobility, Protection, Lethality, Power Supply & Demand, Training & Leader Dev.

Currently operations at the Squad level are too much of a fair fight...we must achieve OVERMATCH to attain decisive victory in the future.



Taking a New Approach...

- Bottom up review, start from the Squad formation and work upwards.
- Review Measures of Formation Effectiveness (MoFE) across all domains of DC
- Evaluate Squad performance as a collective formation, not as individual Sold

"Only when the members of the Squad are thinking jointly on one problem

Maneuver Cent

Best Army in the World

may they properly be called a Squad " GEN Denov. 11 Men 1 Mind



Integrated Capabilities Development Team

Capabilities Development & Integration Directorate

USAIS CDMT Oversight

Commandant, US Army Infantry School
CSM, US Army Infantry School

Potential Solutions

Fire Team Leaders

NCOA

DOTD

TCM-S

MBL

Fire Teams

Human Dimension
Team A
Leader

Human Dimension
Team B
Training

Materiel
Team

Measures of
Effectiveness
Team

CBA
Review

Analysis

Doctrine
Organizational
Training
Leader Development
Materiel
Personnel
Facilities

Board of
Directors
Review

- CMDTs
- CDID, Dir
- CSMs

- Doctrinal Changes
- Changes to squad organizational structure
- Improvements / changes to POIs
- Advancements in Technology
- MOS/SSI
- LVC/G Sims
- Human Dimension

CG Approval

Final
Objective

Attainment
of
Dismounted
Squad
Overmatch

★ Azimuth Checks from Squad Leader Advisory Group and MCOE Leadership

Influences Prioritization of Solutions across DOTMLPF...to impact Army's

World

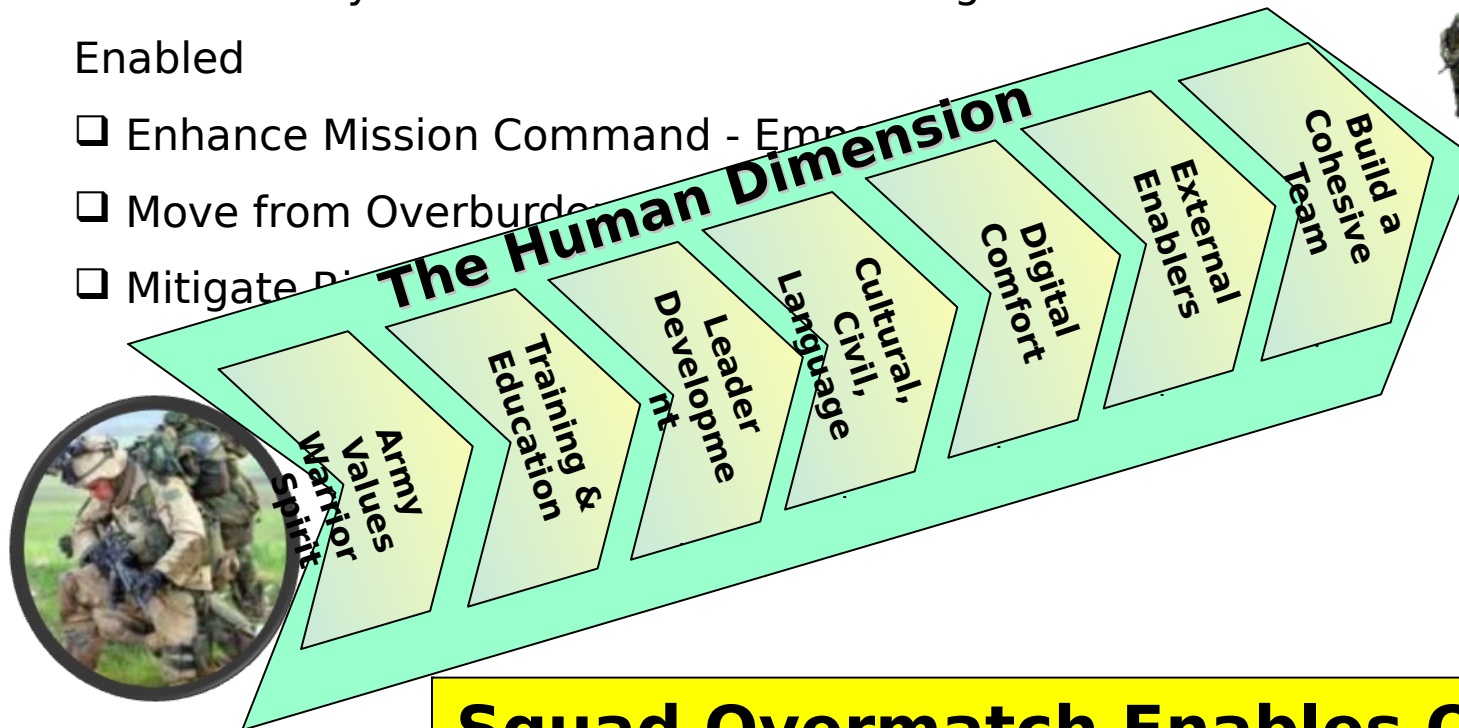


Focus of Squad Overmatch



- ❑ Train, Develop, and Retain Better Soldiers - In Complex Environments
- ❑ Build Decisive Formations - More Effective Actions/Outcomes
- ❑ Make Every Soldier a Sensor - Knowledgeable & Network Enabled
- ❑ Enhance Mission Command - Empower
- ❑ Move from Overburdened
- ❑ Mitigate Risk

Capabilities Development & Integration Directorate



OVERBURDEN (Individual)

Squad Overmatch Enables Operational Success in the Human Environment



Major Adjustments



Fort Benning, Home of the

Leader Development



NCOES Course Refinement



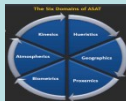
High performance on & off the battlefield requires a prepared mind

Resiliency - CSF - PREP

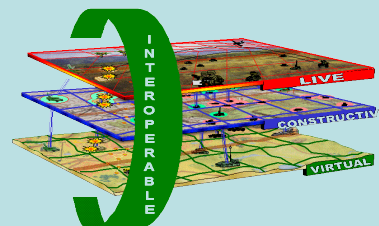


Resourcing Army Learning Model

Training



ASAT



Immersive Training Capabilities



Dismounted C-IED

Materiel



Nett Warrior



Counter Defilade



Soldiers Load

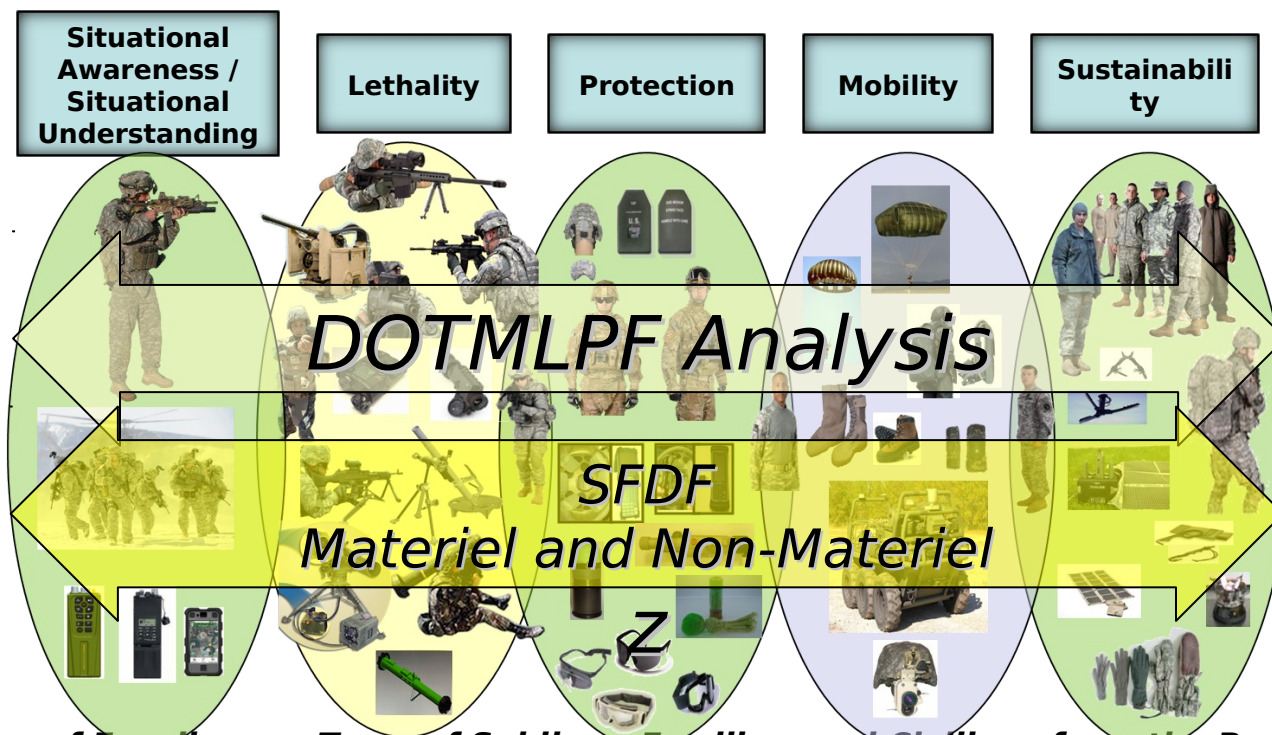
Major Adjustments To Get To Overmatch



Soldier Division/TCM Soldier Mission

Capabilities Development & Integration Directorate

Soldier Division develops future requirements and manages Soldier capabilities for all Soldiers, in all formations, with a primary focus on Maneuver Brigade Combat Teams and Squads, in order to strengthen America's Force of Decisive Action and provide the Army with the best trained and capable Soldiers in the world.



~ 466 Products or Programs

Maneuver Center of Excellence - Team of Soldiers, Families, and Civilians from the Best Army in the World



MCoE CDID

Soldier Division/TCM Soldier



Capabilities Development & Integration

Soldier Division SGM

SGM Michael White



Director, Soldier Division/TCM-Soldier

Director: COL Dan Goldthorpe

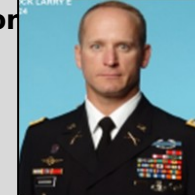
Phone: 706-545-1189



Soldier Division Executive Officer

LTC Larry Glasscock

Phone: 706-545-1798

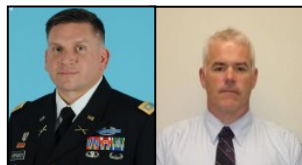


Soldier Requirements Division



Deputy: Dave Libers
Phone: 706-545-9467

Lethality Branch



Chief: LTC Chris Kennedy
Phone: 706-545-1910
Deputy: Matt Walker
Phone: 706-545-7226

Soldier Systems Branch



Chief: MAJ Steve Miller
Phone: 706-545-3901
Deputy: John Yancey
Phone: 706-545-6406

Remote & Autonomous Systems Branch

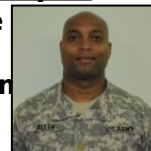


Chief: LTC David Smith
Phone: 706-545-4149
Deputy: Vacant
Phone: 706-545-

Electronics & Special Developments Branch



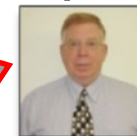
Chief: LTC John Thane
Phone: 706-545-4950
Deputy: Phil Cheathan
Phone: 706-545-4952



Chief: MAJ Jon Allen
Phone: 706-545-7738
Deputy: Vacant
Phone: 706-545-

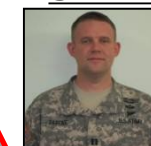
SRD and TCM-Soldier represent every Soldier in the Army. We are the user representative to the TRADOC CDR. We manage capabilities and inform requirements under the JCIDS process for everything a Soldier wears, carries or consumes.

TRADOC Capability Manager - Soldier



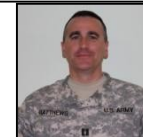
Deputy: Pat Berger
Phone: 706-545-1020

SFDF



Chief: MAJ Jed Zaffke
Phone: 706-545-5052

Nett Warrior



Chief: CPT(P) Aaron Matthews
Phone: 706-545-7081

SaaS / RFI /
DEB

S3R

SEP

C-IED

DIAT

the World



Squad Tasks



*Capabilities Development & Integration
Directorate*

Attack

Defend

Employ Fires

React to Contact

Cordon and Search

Combat Identification

Conduct Reconnaissance

**Maintain Situational
Awareness**

**Conduct Information
Operations**

**Squads/Soldiers
Required
Capabilities align
with accomplishing
the following Squad
Tasks:**

Reference: Squad CBA



The Squad's Critical Needs



Capabilities Development & Integration

1. Lethality (Shoot)

- Precision targeting to leverage joint fires
- Direct fire range and effects overmatch

2. Mobility (Move)

- Deploy individual and squad equipment
- Sustain operations over time and distance

3. Networked (Communicate)

- Collaborate to develop situational understanding
- Access to timely and actionable intelligence and precision enablers



4. Force Protection (Survive)

- Against lethal and non-lethal weapons
- From environmental factors

5. Power & Energy (Sustain)

- Efficient/effective use of available power
- Regenerate power forward to reduce logistics burden

6. Human Dimension (Decide and Act)

- Necessary skills and experience/resiliency
- Trust and confidence in abilities (Mission Command)



Squad Priorities Over Time

Near Term

Mid Term

Far Term

	Near Term	Mid Term	Far Term
Lethality	<ul style="list-style-type: none">• Family of Weapon Sights - Individual (FWS-I)• XM25 Counter Defilade Target Engagement System• Laser Target Locator Module (LTLM)• Small Tactical Optical Rifle Mounted Micro-Laser Rangefinder (STORM)• Accelerated Precision Mortar Initiative	<ul style="list-style-type: none">• FWS - Crew Served (FWS-CS) & FWS - Sniper (FWS-S)• Non-Lethal Capability• Individual Carbine• Precision Sniper Rifle (PSR)• Unmanned Aerial Systems (UAS)	<ul style="list-style-type: none">• Connectivity to all supporting platforms• Lethal to Non-Lethal Conversion• Sensor to Shooter link/Pass targets
Mobility (Load)	<ul style="list-style-type: none">• Squad Multipurpose Equipment Transport (SMET)• Modular Light Weight Load Carrying Equipment	<ul style="list-style-type: none">• Load Assistance Technologies (Human Augmentation System Capabilities)	<ul style="list-style-type: none">• Portable Robotics• Push down IED• Light Weight Ammo• Human Augmentation
Network	<ul style="list-style-type: none">• Nett Warrior• Company Intelligence Support Team (COIST)	<ul style="list-style-type: none">• Connecting Soldiers to Digital Apps• Access to precision targeting & fires	<ul style="list-style-type: none">• "Push-Down" SA /SU Systems• "Reach-Back" to supporting weapons platforms• Direct linkage to higher echelons
Force Protection	<ul style="list-style-type: none">• Pre-shot Threat Detection (PTD)• Enhanced Night Vision Goggles (ENVG)• Targeting Sensor (TS)• Individual Soldier Protection	<ul style="list-style-type: none">• Lightweight Body Armor• Fused Vision Mobility Device (FVMD)• Robotic Explosive Detection• Unmanned Aerial System (UAS)• Sense Through The Wall (STTW)	<ul style="list-style-type: none">• BIO Monitoring & Reporting Capability• Combat ID• Portable Mine Clearing• Push down IED Detect/Identify
Power & Energy	<ul style="list-style-type: none">• ECH, Auxiliary Power Unit, Fuel Cell• SMET• Working Dogs	<ul style="list-style-type: none">• Portable Mine Clearing Batteries/Power generation• Longer Life, Reduced Weight,	<ul style="list-style-type: none">• Embedded Batteries/Power into existing uniforms and equipment
Human Dimension (Cognitive, Physical, Social-Cultural, Moral-Ethical)	<ul style="list-style-type: none">• Dismounted Soldier System (Immersive Squad Level Trainer)• 360 degree assessment• Squad/Team Leader Course• WLC, ALC, SLC Adjustments	<ul style="list-style-type: none">• Commonality• Blended Live/Virtual/Constructive & Gaming Sims Training• Digital Soldier Avatar• Digital Soldier Book/Tracker	<ul style="list-style-type: none">• Wireless Power (Charging)• Embedded training capability• Avatar linked to simulation performance
<ul style="list-style-type: none">• Tactically and Technically Proficient, Fully Trained and Empowered• Situational Understanding/Situational Awareness - Appropriate Actions - Decide and Act			



Modernization of the



From 2001 - Funding for Soldier Capability Improvements have significantly contributed toward increasing effectiveness and mission accomplishment of Soldiers and Squads.

Soldier: 2001

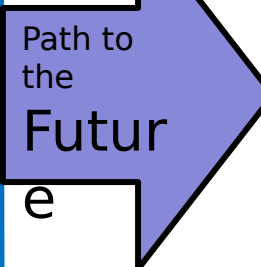
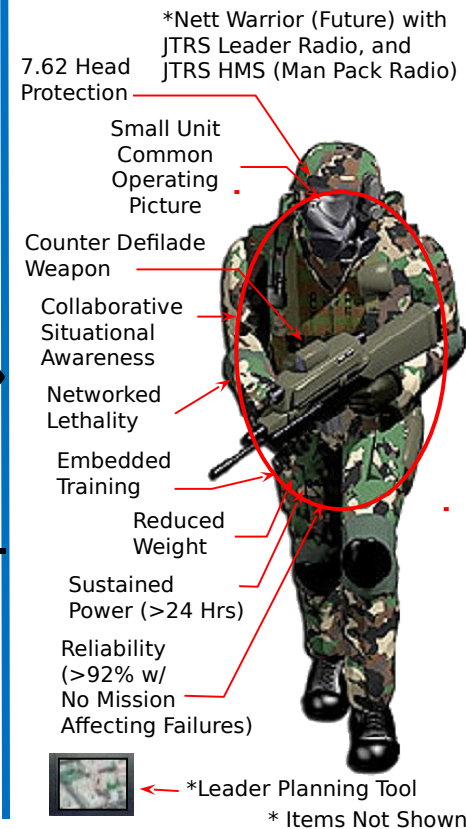


Soldier: 2013/2014



Capabilities Development & Integration Directorate

Future (Force 2025+)



Influencing the Future

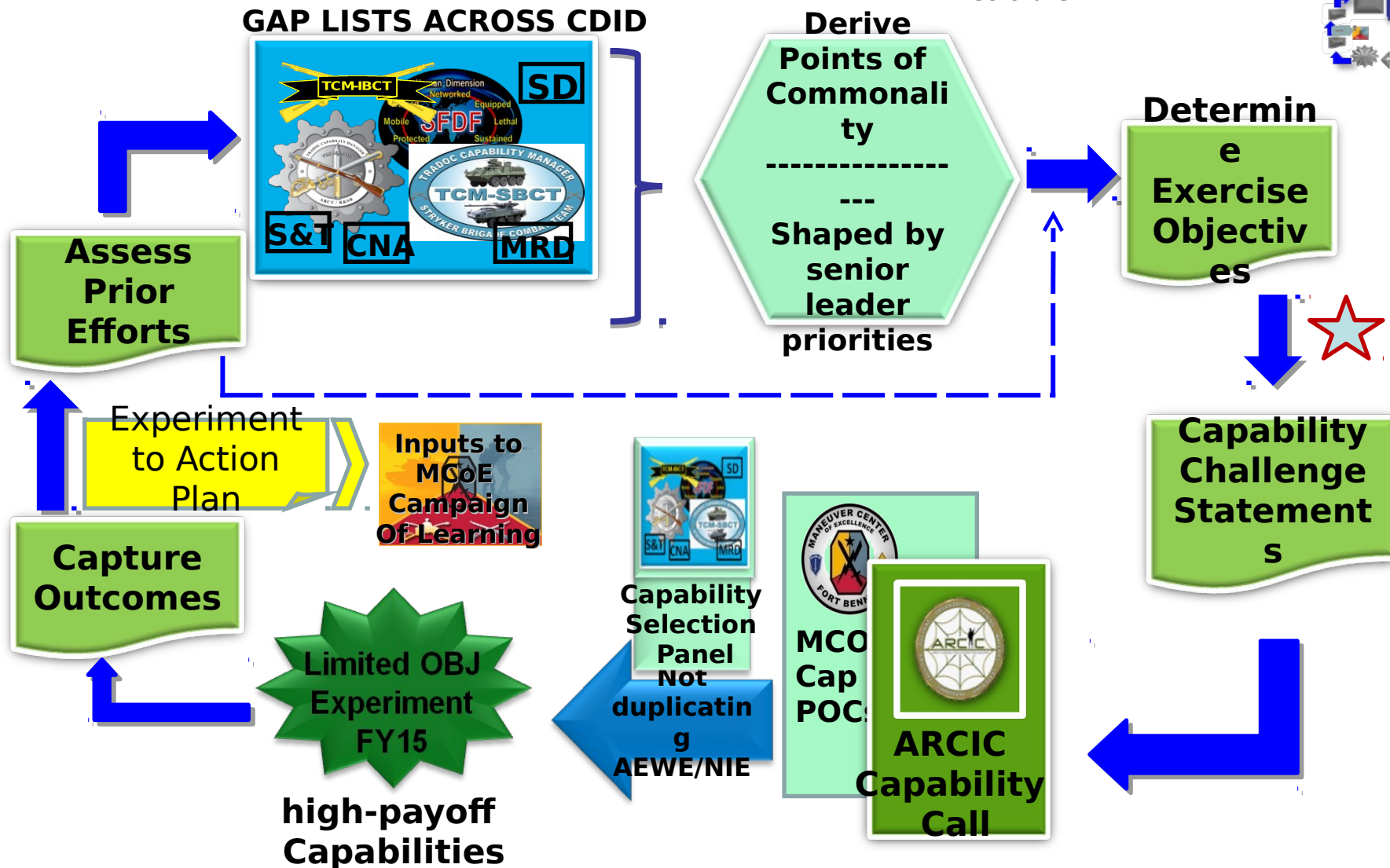
- **Modernization Strategies**
 - Concept Development
 - Capability Based Assessments
- **S & T Investment Strategy**
 - Experimentation & Assessment
 - Measures of Formations Effectiveness
- **Requirements Development**
 - Prioritization (MCoE 1-N)
 - Strategic Communications



SQD Assessment Shaping the Way Ahead



Capabilities Development & Integration
Directorate





***Capabilities Development & Integration
Directorate***

Discussion